

REMARKS

Applicants have read and considered the Office Action dated November 6, 2003 and the references cited therein.

Claims 1-5 and 14-18 were rejected under 35 U.S.C. Section 103(a) as being obvious over U.S. Patent No. 6,035,398 (BJORN) in view of U.S. Patent No. 5,892,824 (BEATSON et al). Applicants respectfully traverse the rejection for the following reasons:

Claim 1 recites a method for the separate authentication of a template and of user data inserted into this template. It includes the step of providing the actual template, a template ID and a document authentication code DAC(t) linked to the template and based thereon. User data is then inserted into the template and later extracted therefrom. Another document authentication code DAC(d) is generated, which is based on the user data by itself. Finally, all relevant information is stored in an Approval Data Packet ADP. This method advantageously allows a user to verify the authenticity of both the template itself without the user data therein, and the user data by itself, separately and independently. It is therefore possible to determine if one or the other has been tampered with.

BJORN relates to a cryptographic key based on fingerprinting information. It discloses extracting fingerprint features from a fingerprint image, generating a template including these fingerprint features and generating a pair of keys related to this template, a "private" cryptographic key and a public key.

It is the Examiner's contention that BJORN discloses the first four (4) steps of the present claim 1. In his analysis leading to this conclusion, the Examiner has made the following associations:

<u>Claim 1</u>	<u>BJORN</u>
Template	Template
DAC(t)	Public key
User data	Fingerprint features
DAC(d)	Cryptographic key

Applicants however assert that the Examiner is mistaken in his interpretation of BJORN for the following reasons.

First, it should be noted that the word 'template' may have different definitions depending on the technical field in which it is used. The Microsoft Bookshelf 2000 edition, an appropriate extract thereof being enclosed herewith, contains five definitions to this expression. From a reading of the present application, it is clear that the word 'template' is understood as defined in entry no. 5:

*"In word processing and desktop publishing programs, a predesigned document that contains formatting and, in many cases, generic text. "*¹

In claim 1 of the present application, it is this 'formatting and generic text information' which is encoded in DAC(t).

From a reading of the BJORN patent, it is clear that the word 'template' is used therein in accordance with definition no. 2:

"In image processing, a pattern that can be used to identify or match a scanned image."

BJORN creates a template based on the fingerprint features, compares this template to subsequently obtained fingerprinting information, and attempts to match them through matching unit 250 (see column 3, lines 37 to 43). In addition, the template of BJORN cannot receive user data as recited in claim 1 of the present application, since for image processing templates the data (the fingerprint features of BJORN) is the template; the two cannot be separated, and therefore cannot be separately authenticated.

Moreover, it is argued that DAC(t) and DAC(d) cannot be read on the public and cryptographic keys of BJORN. BJORN makes a hash of the template, which is a representation of the fingerprint features, to create both the cryptographic and the public keys. These keys are in effect a private/public key pair as are well known in the field of file encryption. Both these keys are related to the same entity, that is, the template created from the fingerprint features (see column 4, lines 25 to 37).

As clearly defined in claim 1 of the present application, DAC(t) and DAC(d) are document authentication codes related to two (2) different documents; DAC(t) is representative of the template empty of user data, and DAC(d) of the user data by itself without the template

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information. These two codes cannot therefore be the same as the public and cryptographic keys of BJORN.

In view of the above, it is clear that BJORN does not teach all of the elements of steps a) through d) of claim 1 of the present application. BJORN cannot provide the separate authentication of a template and of user data inserted therein, since it does not provide separate authentication codes for these two elements. As a matter of fact, the "template" and "user data" of BJORN are not two separate entities themselves.

BEATSON et al. does not disclose or suggest these elements either. It will be noted that in BEATSON et al., the word "template" again refers to an image processing tool and not to a word processing document.

It is therefore argued that the combination of BJORN and BEATSON et al. does not disclose or suggest all of the elements of claim 1, and the Examiner is respectfully requested to withdraw his objection.

Independent claim 14 also concerns a method for the separate authentication of a template and of user data inserted therein. In this case, in addition to the elements of claim 1, a document authentication code related to the template with the user data inserted therein, DAC(c) is created before the user data is extracted from the template. This therefore provides a third authentication code related to the combination of the template and the user data.

As explained above, contrary to the Examiner's contention, BJORN does not provide a separate template and user data and separate authentication codes for these two entities separately. Claim 14 is therefore considered new, novel and nonobvious over the cited references for the same reasons as claim 1. Moreover, dependent claims 2-5 and 15-18 are also believed to be allowable for the same reasons as well as other advantages.

Claims 6 and 19 were rejected under 35 U.S.C. Section 103(a) as being obvious over U.S. Patent No. 6,035,398 (BJORN) in view of U.S. Patent No. 5,892,824 (BEATSON et al) and further in view of U.S. Patent No. 6,071,190 (WEISS et al). Claims 6 depends from claim 1 while claim 19 depends from claim 14, which are believed to be allowable. Applicants respectfully traverse the rejection for the reasons stated above with regard to claims 1 and 14 as well as others.

Claims 7, 20 and 22 were rejected under 35 U.S.C. Section 103(a) as being obvious over U.S. Patent No. 6,035,398 (BJORN) in view of U.S. Patent No. 5,892,824 (BEATSON et al) and

further in view of U.S. Patent No. 6,021,426 (DOUGLIS et al). Claim 7 depends from claim 1, while claims 20 and 22 depend from claim 14, which are believed to be allowable. Applicants respectfully traverse the rejection for the reasons stated above with regard to claims 1 and 14 as well as others.

Claim 8 was rejected under 35 U.S.C. Section 103(a) as being obvious over U.S. Patent No. 6,035,398 (BJORN) in view of U.S. Patent No. 5,892,824 (BEATSON et al) and further in view of U.S. Patent No. 6,021,426 (DOUGLIS et al), and still further in view of U.S. Patent No. 5,898,779 (SQUILLA et al). Claim 8 depends from claim 1, which is believed to be allowable. Applicants respectfully traverse the rejection for the reasons stated above with regard to claim 1 as well as others.

Claims 9 and 10 were rejected under 35 U.S.C. Section 103(a) as being obvious over U.S. Patent No. 6,105,012, (CHANG et al.) in view of BEATSON et al. Applicants respectfully traverse for the following reasons.

Claim 9 concerns a method for the separate authentication of a template having entry fields and user data inserted in these fields. A template, template ID and corresponding DAC(t), which is based on this template and linked thereto, are selected. User data is entered and linked to the entry fields of the template. A user data document authentication code DAC(d) is generated, based on the user data. All relevant elements above are stored in an Approval Data Packet referred to as ADP.

CHANG et al. discloses a secure method for performing financial transactions over a web browser. This method involves templates in the form of web registration forms and user data inserted therein, and includes the use of both a private/public key pair and a random session key to encrypt data for communication back and forth between a user system and a financial institution server.

The Examiner has read DAC(t) and DAC(d) on the random session key generated by CHANG et al. It is respectfully argued that this session key cannot possibly be considered a document authentication code. DAC(t) is a code that is based on the content of the template, and DAC(d) is a code that is based on the content of the user data. They are not encryption means, but authentication tools used to verify, upon accessing either the template or the user data, that the corresponding information is the right one. It is a tool to protect the content of the template and user data, not its transmission.

By contrast, the session key of CHANG et al. is not related to the content of the user registration form or of the user information entered therein. As explained in column 10, lines 60 and 61 of the cited patent:

“A random session key is a random-bit string generated by means of a random process.”

As it is very clearly a random entity, it cannot be “based on” either the template or the user data. As such, it does not provide for the separate authentication of this template and user data. It only provides added security to the transmission of information over the web, but does not offer any guarantee as to the authenticity of the actual content of the exchanged messages. BEATSON et al. does not provide such elements either.

In view of the above, it is believed that claim 9 patentably distinguishes over the cited prior art. Claim 10, depending from claim 9, is also believed to be allowable for the same reasons as well as others.

Claim 11 was rejected under 35 U.S.C. Section 103(a) as being obvious over U.S. Patent No. 6,102,012 (CHANG et al) in view of U.S. Patent No. 5,892,824 (BEATSON et al) and further in view of U.S. Patent No. 6,071,190 (WEISS et al). The references are discussed above with regard to claims 1, 9 and 14, which are believed to be allowable. Claim 11 is believed to allowable for the reasons stated above as well as others.

Claim 12 was rejected under 35 U.S.C. Section 103(a) as being obvious over U.S. Patent No. 6,102,012 (CHANG et al) in view of U.S. Patent No. 5,892,824 (BEATSON et al) and further in view of U.S. Patent No. 6,021,426 (DOUGLIS et al). The references are discussed above with regard to claims 1, 9 and 14, which are believed to be allowable. Claim 12 is believed to allowable for the reasons stated above as well as others.

Claim 13 was rejected under 35 U.S.C. Section 103(a) as being obvious over U.S. Patent No. 6,102,012 (CHANG et al) in view of U.S. Patent No. 5,892,824 (BEATSON et al), and further in view of U.S. Patent No. 6,021,426 (DOUGLIS et al), and still further in view of U.S. Patent No. 6,035,398 (BJORN) and yet further in view of U.S. Patent No. 5,898,779 (Squilla et al). Applicants assert that it would not be obvious to one of ordinary skill in the art to combine such a large number of references. Even so, the references are discussed above with regard to claims 1, 9 and 14, which are believed to be allowable. Applicants assert that claim 13 is allowable for the reasons stated above as well as others.

Claim 21 was rejected under 35 U.S.C. Section 103(a) as being obvious over U.S. Patent No. 6,035,398 (BJORN) in view of U.S. Patent No. 5,892,824 (BEATSON et al) and further in view of U.S. Patent No. 6,021,426 (DOUGLIS et al) and further in view of U.S. Patent No. 5,898,779 (SQUILLA et al). Claim 21 depends from claim 14, which is believed to be allowable. Applicants assert that claim 21 is allowable for the reasons stated above as well as others.

Claims 23-25 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form. Applicants thank the Examiner for the indication of allowable subject matter. However, Applicants assert that the base claim is allowable and choose not to rewrite the claims in independent form at this time.

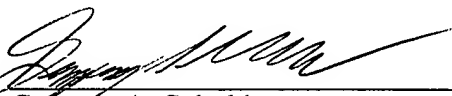
Applicants assert that the claims patentably distinguish over the prior art and are in condition for allowance. A speedy and favorable action on the merits is hereby solicited. If the Examiner feels that a telephone interview may be helpful in this matter, please contact Applicants' Representative at (612) 336-4728.

Respectfully submitted,

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5/6/04



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